



## United States Department of the Interior

### U. S. GEOLOGICAL SURVEY

California Water Science Center

San Diego Projects Office

4165 Spruance Rd., Suite 200

San Diego, California 92101

Phone: (619) 225-6100 Fax: (619) 225-6101

<http://water.wr.usgs.gov>

IN REPLY REFER TO:

June 13, 2012

Mr. Mark Ban  
Hi-Desert Water District  
55439 29 Palms Hwy.  
Yucca Valley, CA 92284

Dear Mr. Ban:

The U.S. Geological Survey is happy to provide you with a cost estimate for installing a multi-piezometer monitoring site adjacent to the proposed wastewater treatment plant (WWTP) site. The total cost is approximately \$216,000, which includes drilling 1,000 feet, geophysical logs, installing at least 3 piezometers, the cost of electronics, and labor.

A multiple-well monitoring site (YV-3) is proposed in the vicinity of the WWTP to assess the saturated-zone hydrology, to collect background data, and to eventually monitor the vertical movement of reclaimed wastewater in the saturated zone. YV-3 will provide depth-specific monitoring points to evaluate groundwater movement, changing water levels and groundwater chemistry in the principal aquifers in the East hydrogeologic unit of the Warren subbasin, which currently has no multi-level monitoring sites.

Please feel free to contact via telephone or email if you have any questions.

Very truly yours,

Tracy Nishikawa Ph.D., P.E.  
Research Hydrologist  
[tnish@usgs.gov](mailto:tnish@usgs.gov)  
v: 619-225-6148  
f: 619-225-6101